

10/30/01

JC928 U.S. PTO

12/04/01

PTO/SB/05 (03-01)

Please type a plus sign (+) inside this box → ☐Approved for use through 10/31/2002. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	1242/49/2
First Inventor	Jeffrey R. Balser
Title	See 1 in Addendum
Express Mail Label No.	ET475301787US

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
*(Submit an original and a duplicate for fee processing)*
2. ☒ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages **132**]  
*(preferred arrangement set forth below)*
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets **15**]
5. Oath or Declaration [Total Pages **3**]
  - a. ☐ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 CFR 1.63 (d))  
*(for continuation/divisional with Box 18 completed)*
  - i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)
6. ☐ Application Data Sheet. See 37 CFR 1.76

**ADDRESS TO:**Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a. ☒ Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☒ paper
  - c. ☒ Statements verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement of Attorney (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)  
*(Should be specifically itemized)*
15. ☐ Certified Copy of Priority Document(s)  
*(if foreign priority is claimed)*
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No. \_\_\_\_\_/\_\_\_\_\_

Prior application information:

Examiner \_\_\_\_\_

Group Art Unit. \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion inadvertently omitted from the submitted application parts.**19. CORRESPONDENCE ADDRESS**☒ Customer Number or Bar Code Label

(Insert Customer Number or Bar Code Label here)

or ☐ Correspondence address below

Name	25297				
PATENT TRADEMARK OFFICE					
Address					
City	State		Zip Code		
Country	Telephone		Fax		

Name (Print/Type)	Arles A. Taylor, Jr.	Registration No. (Attorney/Agent)	39,395
Signature	<i>Arles A. Taylor, Jr.</i>	Date	October 30, 2001

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231 DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

## Addendum

1. HUMAN KCR1 REGULATION OF HERG POTASSIUM CHANNEL BLOCK

10000454-103004

10/30/01

JC928 U.S. PTO

PTO/SB/17 (10-01)

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U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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**FEE TRANSMITTAL  
for FY 2002**

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT

(\$ 1,459.00)

**Complete if Known**

Application Number

Filing Date

First Named Inventor

Jeffrey R. Balser

Examiner Name

Group Art Unit

Attorney Docket No.

1242/49/2

**METHOD OF PAYMENT**

- 1.
- ☐
- The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit  
Account  
NumberDeposit  
Account  
Name☐ Charge Any Additional Fee Required  
Under 37 CFR 1.16 and 1.17☒ Applicant claims small entity status.  
See 37 CFR 1.27

- 2.
- ☒
- Payment Enclosed:**

☒ Check ☐ Credit card ☐ Money  
Order ☐ Other**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Small Entity

Fee Fee Fee Fee  
Code (\$) Code (\$) Fee Description

101	740	201	370	Utility filing fee	370.00
106	330	206	165	Design filing fee	
107	510	207	255	Plant filing fee	
108	740	208	370	Reissue filing fee	
114	160	214	80	Provisional filing fee	

Fee Paid

SUBTOTAL (1) (\$ 370.00)

**2. EXTRA CLAIM FEES**

Total Claims	Extra Claims	Fee from below	Fee Paid
99	-20** = 79	9	711
12	-3** = 9	42	378
Multiple Dependent			

Large Entity Small Entity

Fee Fee Fee Fee  
Code (\$) Code (\$) Fee Description

103	18	203	9	Claims in excess of 20
102	84	202	42	Independent claims in excess of 3
104	280	204	140	Multiple dependent claim, if not paid
109	84	209	42	** Reissue independent claims over original patent
110	18	210	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$ 1,089.00)

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Fee Code	Small Entity Fee Code	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for <i>ex parte</i> reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 400	216 200	Extension for reply within second month	
117 920	217 460	Extension for reply within third month	
118 1,440	218 720	Extension for reply within fourth month	
128 1,960	228 980	Extension for reply within fifth month	
119 320	219 160	Notice of Appeal	
120 320	220 160	Filing a brief in support of an appeal	
121 280	221 140	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,280	241 640	Petition to revive - unintentional	
142 1,280	242 640	Utility issue fee (or reissue)	
143 460	243 230	Design issue fee	
144 620	244 310	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Processing fee under 37 CFR 1.17(q)	
126 180	126 180	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 740	246 370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 740	249 370	For each additional invention to be examined (37 CFR § 1.129(b))	
179 740	279 370	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	
Other fee (specify)			

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

(\$)

**SUBMITTED BY**

Name (Print/Type)

Arles A. Taylor, Jr.

Registration No.  
(Attorney/Agent)

39,395

Complete (if applicable)

Telephone

919-493-8000

Signature

Arles A. Taylor, Jr.

Date

10-30-01

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

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OF COUNSEL:  
JENNIFER L. SKORD

October 30, 2001

"Express Mail" mailing number.: ET475301787US

Date of Deposit 10-30-01

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Commissioner of Patent and Trademarks, Washington, D.C.

Amy J. Martin

Commissioner for Patents  
BOX PATENT APPLICATION  
Washington, D.C. 20231

Re: U.S. Patent Application for HUMAN KCR1 REGULATION OF HERG  
POTASSIUM CHANNEL BLOCK  
Our File No. 1242/49/2

Sir:

Please find enclosed the following:

1. A U.S. patent application for HUMAN KCR1 REGULATION OF HERG POTASSIUM CHANNEL BLOCK (132 pages);
2. Fifteen (15) sheets of drawings;
3. Sequence Listing in paper and computer readable form (CRF);
4. Statement That Sequence Listing and Computer Readable Copy are the Same;
5. Unexecuted Declaration (3 pages);
6. Utility Patent Application Transmittal Form (Form PTO/SB/05, 2 pages);
7. Fee Transmittal Form (Form PTO/SB/17) in duplicate;
8. A check in the amount of \$1459.00 to cover the application filing fee;

Commissioner for Patents  
October 30, 2001  
Page 2

9. A return-receipt postcard to be returned to our offices with the U.S. Patent and Trademark Office date stamp thereon; and
10. A Certificate of Express Mail No.: ET475301787US.

Please contact our offices if there are any questions.

Although a check is being submitted, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment associated with the filing of this correspondence to Deposit Account Number 50-0426.

Respectfully submitted,

JENKINS & WILSON, P.A.



Arles A. Taylor, Jr.  
Registration No. 39,395  
Customer No. Bar Code Label:



25297

PATENT TRADEMARK OFFICE

AAT/ajm

Enclosures

10000151-103001  
T0000151-103001

"Express Mail" mailing number.: ET475301787US

Date of Deposit 10-30-01

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Amy J. Martin

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Balser et al.

Group Art Unit: Not Assigned

**Serial No.: Not Assigned**

Examiner: Not Assigned

Filed: Herewith

Docket No.: 1242/49/2

Confirmation No.: Not Assigned

For: HUMAN KCR1 REGULATION OF HERG POTASSIUM CHANNEL BLOCK

\*\*\*\*\*

**STATEMENT THAT SEQUENCE LISTING AND  
COMPUTER READABLE COPY ARE THE SAME**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. § 1.821(f), applicants hereby state that the Sequence Listing information recorded in computer readable form is identical to the written Sequence Listing on paper.

Although it is believed that no fee is due, the Commissioner is hereby authorized to charge any deficiencies of payment associated with the filing of this correspondence.

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